On Some Structural Abnormalities in *Dignathodon microcephalum* (Lucas, 1846) and their Possible Significance

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ABSTRACT

Some specimens of *Dignathodon microcephalum* (Lucas, 1846) with some structural abnormalities in the antennal articles and the last pair of legs are described. There is no indication of damage or regeneration in these specimens and we presume that these are developmental abnormalities.

RÉSUMÉ

Signification de quelques anomalies de structure chez *Dignathodon microcephalum* (Lucas, 1846).

On a étudié des spécimens de *Dignathodon microcephalum* présentant des anomalies de structure sur les articles antennaires et la dernière paire de pattes. L'absence de toute trace de dommage ou de régénération chez les individus observés amènent à penser qu'il s'agit d'un développement anormal.

INTRODUCTION

Among the large number of centipedes we have studied during the last few years we have found some specimens with abnormal structures. MINELLI & PASQUAL (1986) only found three types of abnormal structures on centipedes: spiral segmentation, mutation of a structure into another and branched appendix.

According to LEWIS (1987) some anomalous structures in centipedes may not fit into MINELLI & PASQUAL's classification (1986) because in most of the cases the anomalous structures are due to problems in the animal development or to structural regeneration after damage.

DESCRIPTION

Abnormal size of left antenna

In a female of *Dignathodon microcephalum* collected at Moral de Calatrava (Ciudad Real) on 6-IV-1986 the antennae are of different sizes; both have all the antennal articles but the left antenna is smaller than the right one because from the sixth to the penultimate article they are

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smaller than the corresponding articles of a normal antenna. The last article is of normal size (Fig. 1).

Abnormal size of the last antennal article on the right antenna on a female

On a female of *Dignathodon microcephalum* collected in Talamanca del Jarama (Madrid), on 30-III-1988 the last antennal article on the right antenna is three times larger than its left equivalent (Fig. 2). This specimen shows no sign of damage and we think that the bigger size of the right last antennal article is due to an abnormal development.

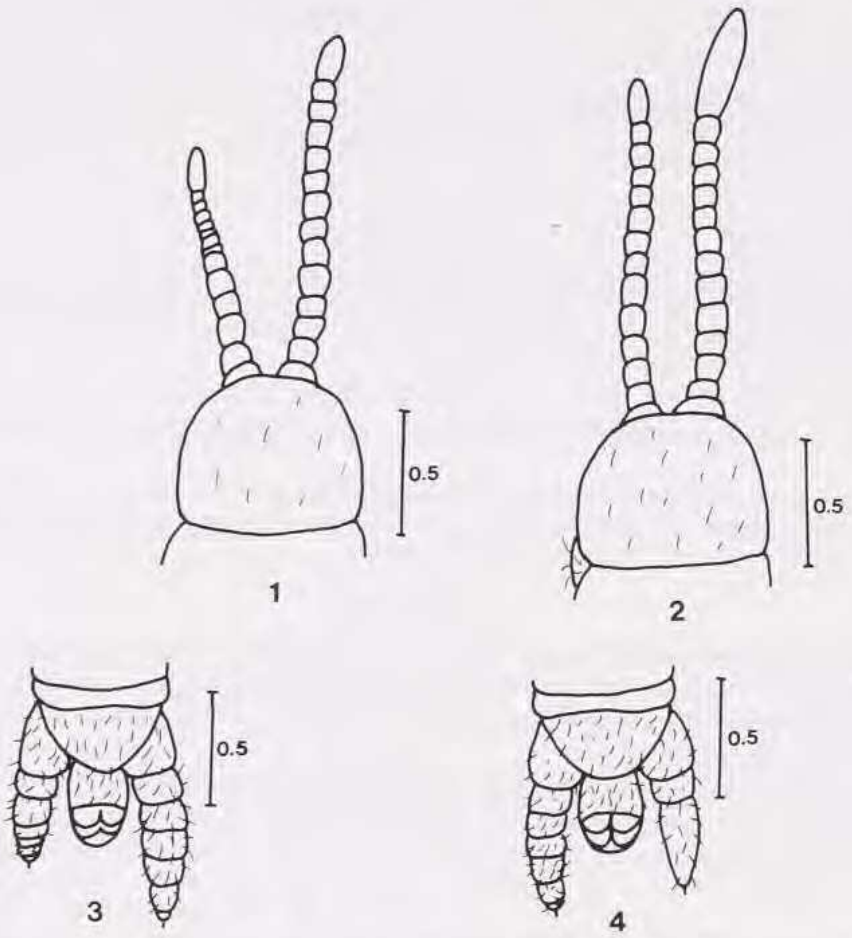

FIG. 1. — *Dignathodon microcephalum* (Lucas, 1846). Head and antennals dorsal view.
FIG. 2. — *Dignathodon microcephalum* (Lucas, 1846). Head and antennals dorsal view.
FIG. 3. — *Dignathodon microcephalum* (Lucas, 1846). Last segment. Ventral view.
FIG. 4. — *Dignathodon microcephalum* (Lucas, 1846). Last segment. Ventral view.

Abnormal size of the right leg on the last pair of legs

On a female of *Dignathodon microcephalum* collected at Moral de Calatrava (Ciudad Real) on 2-V-1987 the legs of the last pair were of different size. In both legs all articles are present but the right leg is smaller than the left: from the fourth article on, the length of the articles is lesser than the size of the corresponding (Fig. 3).

LEWIS (1988) described a similar case in a specimen of *Tygarrup javanicus* (Attems 1907), where the left leg was smaller than the right one due to the different sizes of the articles.

On the aforementioned specimen there is no sign of damage. We think that the smaller size of the articles on the right leg of the last pair of legs is due to abnormal development.

Abnormal development of the last four articles on the last left leg

On a female of *Dignathodon microcephalum* collected at Talamanca del Jarama (Madrid) on 30-III-1988 the last four articles on the last left leg are not articulated instead there is a bigger article that would fit with the fusion of the last four articles, because the size of the two legs is the same (Fig. 4).

On the aforementioned specimen there is no sign of damage. We think that this fusion of the last four articles is due to abnormal development on the appendage.

In conclusion, the four cases of abnormal structures studied seem really due to abnormal development of the articles on the respective appendage, because on none of the four specimens is there sign of damage. Because the anomaly is always based on the legs it is reasonable to think that this is due to their different development.

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